mm HALF ROUND P.V.C GUTTERS
TERS WITH 65mm DOWN SPOUTS.
SUIT LOCATION OF SITE DRAINS
SOAKAWAYS.

BARDGEBOARDS, EAVES & SOFFIT TO BE uPVC

FACING BRICKWORK TO MATCH DEVELOPMENT.

2325mm BRICK OPENING

ES 326

AY
TH 1.8m x 1.2m x
LLED WITH GRANULAR
CLAY TRAPPED
AT THE BASE OF THE
PES. BELOW GROUND
E FROM GULLIES
AKAWAY OR SITE

DRAINAGE SYSTEM.

SUBSTATION STEP TO BE FORMED CONCRETE (MAXIMUM 150mm IN HEIGHT).

FRONT ELEVATION

ROOF TRUSSES TO MANUFACTURERS SPECIFICATION.

PROPRIETARY METAL LINTEL MIN. 100mm END BEARING

WALL LOUVRE:- SEE DRAWING ES352 A2 019/02F

1 No. LAYER OF 12mm MASTERBOARD SHEET (OR SIMILAR ASBESTOS FREE MATERIAL) FIXED TO UNDERSIDE OF ROOF TRUSSES WITH ALL JOINTS & GAPS TAPED & SEALED THEN SKIMMED TO PROVIDE MIN. 1 HOUR FIRE RESISTANCE.

PROPRIETARY METAL LINTEL MIN. 100mm END BEARING

PROVIDE 19mm THK. PLYWOOD SHEET AS TEMP. COVERS OVER OPEN TRENCH AREA.

WALL LOUVRE:- SEE DRAWING ES352 A2 019/02F

F.F.L.

2688 F.F.L. TO CEILING

CAVITY FILL

975

250

ALTERNATIVE SIDE ENTRY CABLE DUCTS (ONLY TO BE INSTALLED IF INSTRUCTED & WITH SPECIFIC APPROVAL)

= 750 750 =

215

50mm C10 BLINDING

SECTION A–A

ROOF TO BE OF APPROVED DESIGN & CONSTRUCTION. PROPRIETARY ROOF TILES TO MATCH DEVELOPMENT.

GALVD. M.S. R.W. PIPE GUARD (IF REQ'D)

SIDE ELEVATION ARROW X

HALF ROUND DRY VENTILATED RIDGE

DRY VENTILATED RIDGE DETAILS

NOTES:

CONCRETE FOR BASES TO BE 1:2:4 MIX OF ORDINARY PORTLAND CEMENT
CONCRETE 35N/mm² (28 DAY STRENGTH)
20mm AGGREGATE SHALL BE PLACED & COMPACTED WITHIN ADEQUATE FORMWORK TO ENSURE THAT THE TOP SURFACES ARE TRUE TO PLANE WITH LEVEL FAIR FACE TROWEL FINISH.
NO DRILLING TO TAKE PLACE WITHIN 28 DAYS OF CASTING.
NO PERCUSSION DRILLS TO BE USED ONLY ROTARY DRILLS.
DO NOT OVER TIGHTEN BOLTS.
TYPICAL MAX WEIGHT OF PLANT = 6000Kg.

FOUNDATIONS – TO BE TAKEN DOWN TO GROUND THAT IS SUFFICIENTLY FIRM TO PROVIDE PHYSICAL SUPPORT TO THE STRUCTURE. SITE PHOTO'S TO BE TAKEN INDICATING EVIDENCE OF FOUNDATION DEPTH WHERE INCREASED DIG IS GREATER THAN 400mm.
THESE WILL BE PROVIDED FOR PAYMENT AND AUDIT PURPOSES.
FOUNDATIONS/PLINTH MUST BE SUITABLE WITH RESPECT TO GROUND CONDITIONS AND LOADING, AND MUST BE APPROVED BY ON–SITE STRUCTURAL ENGINEER.

CABLE TRENCH TO BE 800mm WIDE & 1000mm DEEP. CABLE TRENCH TO BE BACK–FILLED AFTER INSTALLATION OF CABLES WITH SAND AND 75mm TOP LAYER OF 14–20mm LIMESTONE CHIPPINGS.

FOR DESIGN PURPOSES, OPERATIONAL & JOINTING CLEARANCES HAVE BEEN BASED ON A 1000KVA TRANSFORMER & 5 WAY FUSE CABINET AS SHOWN.

SURFACE WATER DRAIN TO BE CONNECTED TO EXISTING IN A MANNER & AT A POINT TO BE AGREED WITH THE LOCAL AUTHORITY.

CABLE DUCTS TO BE SEALED AFTER INSTALLATION OF CABLES. SPARE DUCTS TO BE SEALED WITH EXPANDING FOAM AND DUCTS WITH CABLES TO BE SEALED. REFER TO ES 400 D 5 FOR ALL DUCTING SPECIFICATIONS.

WALLS – TO BE 280mm CAVITY CONSTRUCTION, BOTH LEAVES TIED TOGETHER USING PROPRIETARY GALVANISED TIES EVERY 6TH COURSE AND AT 900mm CENTRES. WALLS TO INCORPORATE CAVITY TRAYS & WEEP HOLES WHERE APPROPRIATE. CAVITY TO BE CLOSED WITH DPC TO ALL OPENINGS. EXTERNAL LEAF TO BE FACING BRICKWORK MATCHING DEVELOPMENT. INNER LEAF TO BE SMOOTH TEXTURED, LIGHT COLOUR SOLID CONCRETE BLOCKS/BRICKS 3.5N/mm².

FLOOR – STEEL FLOAT FINISH TO 3mm IN 3m LENGTH 150mm THK. C35 REINF. CONCRETE WITH A252 MESH AT BOTTOM + (40mm COVER) ON D.P.M. AND 50mm SAND BLINDING – OVER COMPACTED HARDCORE FILL. EXTRA REINFORCEMENT REQUIRED OVER CABLE SLOTS (SEE THRESHOLD DETAIL)

ROOF – TO BE CONSTRUCTED USING MARLEY ROOF TILES ON TREATED S.W. BATTENS FIXED OVER GOOD QUALITY ROOFING FELT ONTO BRACED TIMBER ROOF TRUSSES. WALL PLATES TO BE SECURED TO BRICKWORK USING PROPRIETARY GALVANISED STRAPS. ROOF CONSTRUCTION TO INCORPORATE CROSS VENTILATION AND ACCESS HATCH IN CEILING. ALL WORK TO BE CARRIED OUT TO CURRENT BRITISH STANDARDS AND CODES OF PRACTICE.

LIGHTING & POWER – TO BE INSTALLED IN ACCORDANCE WITH BS 7671. SEE ADDITIONAL NOTES.

DOORS AND LOCKING TO COMPLY WITH ES 326

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ELECTRICITY NORTH WEST ES 352, ES 397 & ES 326 AND ALL ASSOCIATED WORKS MUST COMPLY WITH THIS INFORMATION AND DETAIL IN FULL

DASHED LINES INDICATE 215mm BRICKWORK BELOW FLOOR SLAB (FORMING TRENCH SIDES/CABLE SLOT)

CABLE TRENCH 800mm x 1000mm DEEP
CABLE TRENCH TO BE BACK FILLED BY ELECTRICITY NORTH WEST AFTER INSTALLATION OF CABLES WITH SAND AND 75mm TOP LAYER OF 14–20mm LIMESTONE CHIPPINGS

UNIT TRANSFORMER 1000 k.V.A. SHOWN, FITTED WITH HV SWITCHGEAR & 5 WAY L.V. FUSE CABINET.

NOTE:
CAPABLE OF RECEIVING 'MERLIN GERIN' or LUCY 'SABRE' HV SWITCHGEAR

FLUORESCENT
NG WITH POLYCARBONATE COVER

ACCESS HATCH TO ROOF SPACE

860

X

SUMER

13amp SOCKET WITH RCD

LIGHT SWITCH

mp SOCKET
TEST VAN ONLY

TWIN FLUORESCENT FITTING WITH POLYCARBONATE COVER

ELECTRICAL LAYOUT

4200
280 3640 280

280

600 2440 600

3750 3190

TRENCH
CABLE SLOTS TO ALLOW LATERAL MOVEMENT OF CABLES DURING INSTALLATION

800

850

1360 LOUVRE

1380

A A

HOCKEY STICK INSERTED PRIOR TO CASTING SLAB EATS 12/24

850 2500 850

FLOOR PLAN

FORM ACCESS HATCH TO ROOF SPACE FOR INSPECTION & MAINTENANCE PURPOSES

460

PROPRIETARY METAL LINTEL MIN. 100mm END BEARING

MAKE GOOD INNER SURROUNDS OF VENTILATOR OPENINGS

1800

150mm THK. R.CON. ON D.P.M. ON 50mm SAND BLINDING OVER HARD–CORE FILL.

460

SEE DETAIL THRESHOLD BELOW

D.P.C.

G.L.

75

CABLE SLOT

215mm BRICKWORK TO TRENCH SIDES

CABLE SLOT TO BE SAND FILLED ON COMPLETION OF CABLING

REBATE 75mm WIDE x 20mm DEEP TO SEAT STEEL PLATE WHEN INSTALLING EQUIPMENT

2 x SETS OF 7No. 150 mm INT.DIA. CABLE DUCTS (LAID 3 ON 4) WITH SUITABLE R.C. LINTEL OVER.
ALL DUCTS TO BE SEALED
SPARE DUCTS TO BE SEALED WITH EXPANDING FOAM.
REFER TO ES 400 D 5 FOR ALL DUCTING SPEC.

SECTION B–B

Aluminium Door Threshold

Timber Door Threshold

Floor Slab

10 65 150 10 65 100 250

100mm, or 175mm. Lintel 1800 long. Leaving 1500 span for cable entry.

Lintel Lintel

Footings

SECTION THRESHOLD DETAIL

APPROVED ROOF TILES

38x25mm BATTENS

SARKING FELT

100x80mm WALL PLATE

1 No. 12mm THICK MASTERBOARD

uPVC FASCIA PANEL

VENTILATED SOFFIT

CATNIC HOLDING DOWN STRAPS AT 1200mm CTRS

ROOF & GUTTER DETAILS

APPROVED ROOF TILES

38 x 25 BATTEN

FELT

uPVC FACIA & SOFFIT

ROOF TRUSS LADDER TO GABLE END AT 1200 CENTRES

CAVITY TRUSS

DRY VERGE DETAIL

Facing Materials:

Walls - Reconstituted Stone

Substation facing materials to match existing approved development facing materials

revisions
A) MINOR MODS
B) MINOR MODS
C) LUCY 'SABRE' OUTLINE SHOWN– DOOR DETAILS ETC
D) DRAWING APPD 23/09/03
E) ISSUED FOR CIRCULATION
F) VENTILATOR SIZES AMENDED
G) HOCKEYSTICK ADDED
H) VARIOUS DETAIL CHANGES 16–01–06
I) WALL LOUVRE REFERENCE UPDATED 30–10–06
J) FOUNDATION & SOAKAWAY DETAILS ADDED 15–05–09
K) REVISED WITH ES 397 27–04–10

electricity north west

approved G.H.SMITH date23/09/03

CONSTRUCTION DETAILS FOR INDOOR UNIT SUBSTATION

site – –
– –
– –

scale DO NOT SCALE

scheme number
– – – – – –

drawing number ES352 A2 006/02K

sheet